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Andreas Beu

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STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

VU, THANH T

ART UNIT

PAPER NUMBER

2175

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/626,746	Applicant(s) BEU ET AL.	
	Examiner THANH T. VU	Art Unit 2175	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-18 and 20-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-18, and 20-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This communication is responsive to Amendment, filed 5/12/2009.

Claims 1-5, 7-18, and 20-30 are pending in this application. This action is made Final.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-18, 20-27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Messinger et al. ("Messinger", U.S. Pat. No. 7,000,187), Rockey et al.. ("Rockey", Pub. No. US 2004/0268259), and Meisner et al. ("Meisner", US 6,625,299).

Per claim 1, Messinger teaches system for acquiring information and functions from a database, comprising:

at least one context object containing a data record that has information and functions from the database and a context-specific menu that has a control component enabling access by a user to the context object (see figs. 2 and 13A, *context object 42a-d; context-specific menu 400*; see col. 8, lines 34-50);

a context manager and a display device displaying a context display for visualizing the selected context objects (figs. 9 and 13; *current task 42b and steps are displayed to the user*).

Although Messinger teaches a particular tasks displayed in the list of task indication may be presented to the use a function of a mode setting (col. 2, lines 41-45; col. 12, lines 30-41),

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Messinger does not specifically teach automatically determining a current context of the user by at least one of a position in space, a work object and a work task of the user, automatically generating selected context objects from the context of the user in an automatic context registration by dynamically selecting the context object as a function of the current context of the user and automatically offering the selected context objects to the user without requiring the user to make individual preselections, and a tracking system detecting and recognizing real objects in a space, the tracking system comprising at least one image detection unit detecting the real objects and a computer unit processing information output by the image detection unit wherein the processed information from the tracking system is provided to the automatic context registration for automatically generation of the context of the user.

However, Rockey et al. teaches automatically determining a current context of the user by at least one of a position in space, a work object and a work task of the user, automatically generating selected context objects from the context of the user in an automatic context registration by dynamically selecting the context object as a function of the current context of the user and automatically offering the selected context objects to the user without requiring the user to make individual preselections ([0017] *shows determining the user's context within a task and dynamically presenting a UI context sensitive commands.*)

Meisner teaches a tracking system detecting and recognizing in the user's viewing direction real objects in a space located in the use's field of vision, the tracking system comprising at least one image detection unit detecting the real objects and a computer unit processing information output by the image detection unit wherein the processed information from the tracking system is provided to the automatic context registration for automatically

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generation of the context of the user (col. 6, lines 39-44; col. 8, lines 45-50; col. 8, line 63-col. 9, line 13-35)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the teaching of Rockey and Meisner in the invention of Messinger in order to provide systems of presenting commands in a task sensitive manner, which assist in using physical screen space in a more efficient manner ([0016]), and in order to allow a user to quickly and accurately apply virtual information to a problem, a task or a situation in the real world.

Per claim 2, the modified Messinger teaches the system as recited in Claim 1, wherein the context objects are assigned granularity levels, wherein the context manager comprises a granularity regulator selecting the context objects from a selection range as a function of a selected granularity level, and wherein the size of the selection range is dependent on the granularity level selected (Messinger, fig. 13c; see col. 12, lines 15-27, *which shows different levels menu (granularity levels) of context objects*).

Per claim 3, the modified Messinger teaches the system as recited in Claim 2, wherein the assignment of the granularity levels of the context objects is at least one of an automatic assignment and a user-guided assignment of the granularity level (Messinger, fig. 13c; col. 12, lines 15-27; *level menu 430*).

Per claim 4, the modified Messinger teaches the system as recited in Claim 1, wherein the control component of the context-specific menu enables access by the user to the information and the functions and enables removal by the user of the selected context objects from the context display (Messinger, col. 12, lines 28-42, *which shows task list are based on user's privilege on the network*).

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Per claim 5, the modified Messinger teaches the system as recited in Claim 1, further comprising a manual context registration providing, a user-guided generation of the selected context objects from the context of the user (Messinger, col. 12, lines 15-20 and lines 35-41; *level menu and user's privilege*).

Per claim 7, the modified Messinger teaches the system as recited in claim 1, further comprising a workflow engine monitoring and controlling a work task of the user, wherein information supplied by the workflow engine is provided to the automatic context registration for automatic generation of the context of the user (Nielsen, fig. 4; col. 10, lines 231-52)

Per claim 8, the modified Messinger teaches the system as recited in Claim 1, wherein the context of the user is determined additionally as a function of communication partners of the user (Messinger, col. 12, lines 35-41).

Per claim 9, the modified Messinger teaches the system as recited in Claim 5, further comprising references prompting the context manager to select the context objects from the context of the user by the manual context registration, wherein the references comprise at least one of entries in the context-specific menu or marks on real objects in a space (Messinger, col. 12, lines 35-41).

Per claim 10, the modified Messinger teaches the system as recited in Claim 1, wherein the display device is a mobile display (Messinger, fig. 1; *mobile display 10a-b*).

Per claim 11, the modified Messinger teaches the system as recited in one of the preceding claims, wherein the control component selects the context objects to be visualized on the display device by the user (Messinger, figs. 9 and 13; *current task 42b and steps are displayed to the user*).

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Per claim 12, the modified Messenger teaches the system as recited in Claim 1, further comprising a further control component generating messages regarding external information, wherein the context of the user is determined additionally as a function of the messages (Messenger, col. 8, lines 34-39).

Per claim 13, the modified Messenger teaches the system as recited in Claim 1, wherein the database is configured for receiving notes of the user that are linked to the context of the user, the notes being classified as one of private, public, and relevant to data maintenance (Messenger, col. 12, lines 9-15; level menu and user's privilege).

Claims 14-18 and 20-26 are rejected under the same rationale as claim 1-5 and 7-13 respectively.

Claim 27 is rejected under the same rationale as claim 1.

Per claim 29, the modified Messenger teaches the system as recited in claim 1, wherein the real objects in the space comprise tangible objects (Nielson, col. 2, lines 30-31 and lines 46-48; *tangible objects such as human's head and eyes*)

Claims 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Messenger et al. ("Messenger", U.S. Pat. No. 7,000,187), Rockey et al.. ("Rockey", Pub. No. US 2004/0268259), Meisner et al. ("Meisner", US 6,625,299), and Qiao et al. ("Qiao" US Pat. No. 6,075,895).

Claim 28, the modified Messenger teaches the system as recited in claim 1, but does not teach wherein one of the real objects in the space is one of a machine, a barcode, a label, a component or a person. However, Qiao teaches one of the real objects in the space is one of a machine, a barcode, a label, a component or a person (col. 12, lines 18-29). Therefore, it would

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have been obvious to one of ordinary skill in the art at the time of the invention to include the teaching of Qiao in the invention of the modified Messinger in order to provide detection and recognition of alternative gesture making targets that represent real-world objects.

Claims 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Messinger et al. (“Messinger”, U.S. Pat. No. 7,000,187), Rockey et al.. (“Rockey”, Pub. No. US 2004/0268259), Meisner et al. (“Meisner”, US 6,625,299), and Paschal (US Pat. No. 5, 661,473).

Claim 30, the modified Messinger teaches the system as recited in claim 1, but does not teach wherein the real objects in the space comprise at least one tangible machine with a barcode or a label. However, Paschal teaches the real objects in the space comprise at least one tangible machine with a barcode or a label (Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the teaching of Qiao in the invention of the modified Messinger in order to provide automatic detection and recognition of targets that represent real-world objects.

Response to Arguments

Applicants’ arguments in the Amendment have been fully considered but are not persuasive.

The applicants’ primary argument is that “there is absolutely not reason why a person of ordinary skill in the art would combine the AR technology of Meisner with the trainings and support software applications of Messinger and Rockey.” (see page 4 of applicants' remarks).

The examiner does not agree for the following reasons:

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In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In *KSR*, the Supreme Court emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," *Id.* at 1739, and discussed circumstances in which a patent might be determined to be obvious. *KSR*, 127 S. Ct. at 1739 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966)). The Court reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* The operative question in this "functional approach" is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.* at 1740.

In this case, Meisner is analogous to Messinger and Rockey by providing support using menu driven display screen for a task (See, col. 8, line 63—col. 9, line 35). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the teaching Meisner with the trainings and support software applications of Messinger and Rockey in order to provide in order to allow a user to quickly and accurately apply virtual information to a problem, a task or a situation in the real world (Meisner, col. 1, lines 50-54).

Conclusion

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THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THANH T. VU whose telephone number is (571)272-4073. The examiner can normally be reached on Mon- Fri 7:00 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L. Bashore can be reached on (571) 272-4088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thanh T. Vu/

Primary Examiner, Art Unit 2175